

IL11 Cas9-KO Strategy

Designer: Xiaojing Li
Design Date: 2019-9-19
Reviewer: Jia Yu

Project Overview

Project Name

IL11

Project type

Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Il1l* gene. The schematic diagram is as follows:



- The *Il11* gene has 3 transcripts. According to the structure of *Il11* gene, exon2-exon4 of *Il11-201* (ENSMUST00000094892.11) transcript is recommended as the knockout region. The region contains 422bp coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Il11* gene. The brief process is as follows: CRISPR/Cas9 system w

- The *Il1l* gene is located on the Chr7. If the knockout mice are crossed with other mice strains to obtain double gene positive homozygous mouse offspring, please avoid the two genes on the same chromosome.
- This Strategy is designed based on genetic information in existing databases. Due to the complexity of biological processes, all risk of the gene knockout on gene transcription, RNA splicing and protein translation cannot be predicted at the existing technology level.

Gene information (NCBI)

Il11 interleukin 11 [Mus musculus (house mouse)]

Gene ID: 16156, updated on 31-Jan-2019

Summary



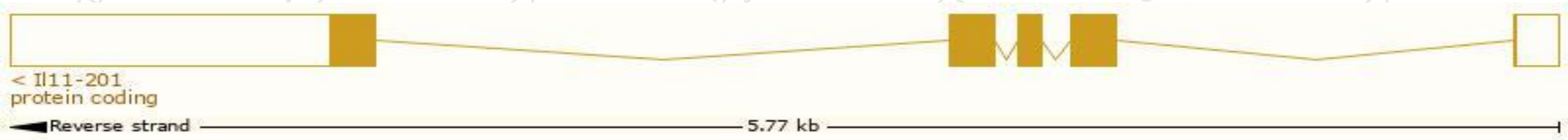
Official Symbol	Il11 provided by MGI
Official Full Name	interleukin 11 provided by MGI
Primary source	MGI:MGI:107613
See related	Ensembl:ENSMUSG000000004371
Gene type	protein coding
RefSeq status	VALIDATED
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	IL-11
Expression	Biased expression in testis adult (RPKM 3.5), colon adult (RPKM 0.3) and 4 other tissues See more
Orthologs	human all

Transcript information (Ensembl)

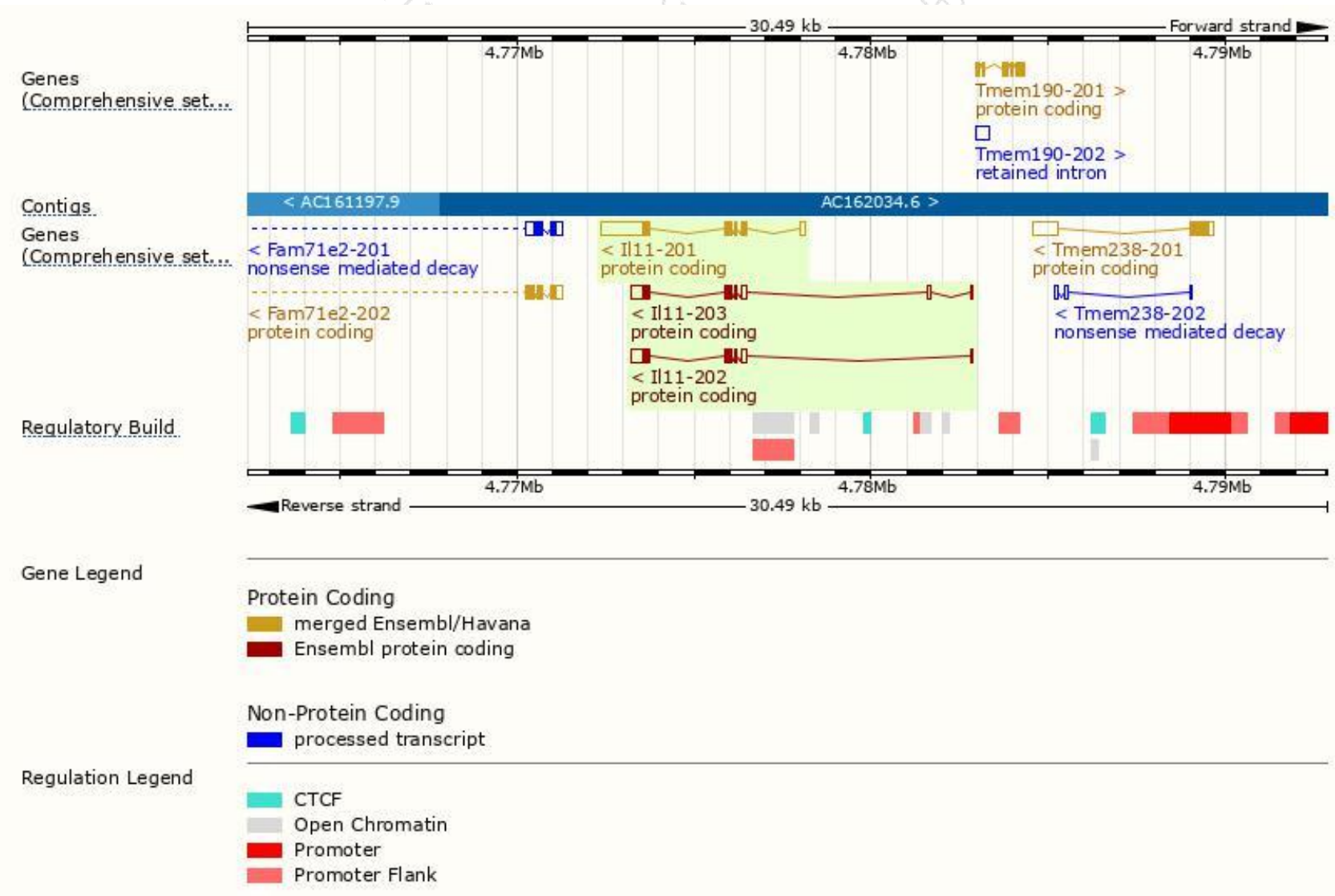
The gene has 3 transcripts,all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
II11-201	ENSMUST00000094892.11	1949	199aa	Protein coding	CCDS39740	A3KPB8 P47873	TSL:1 GENCODE basic APPRIS P1
II11-203	ENSMUST00000234277.1	1059	140aa	Protein coding	CCDS71881	-	GENCODE basic
II11-202	ENSMUST00000163481.2	990	140aa	Protein coding	CCDS71881	F7A7F2	TSL:1 GENCODE basic

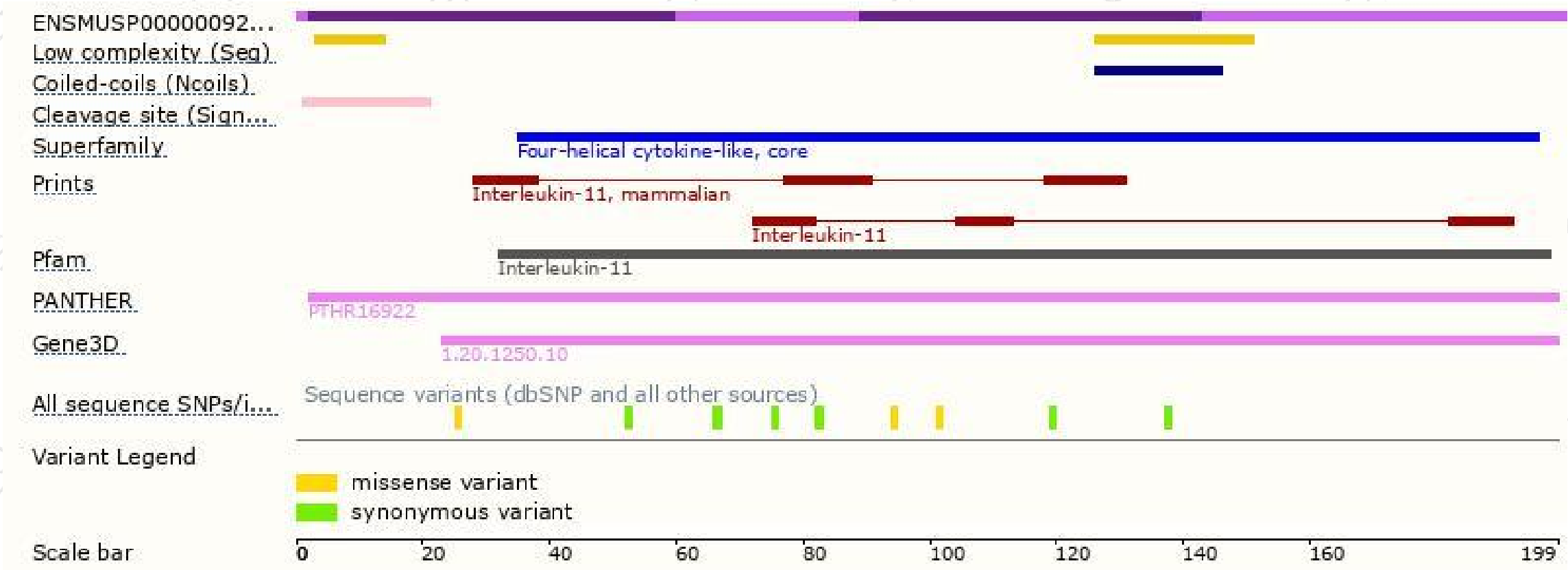
The strategy is based on the design of *II11-201* transcript,The transcription is shown below



Genomic location distribution



Protein domain



If you have any questions, you are welcome to inquire.

Tel: 400-9660890

